

II. REMARKS

Claims 1-17 are currently pending in this application. Claims 1-5 and 7-13 stand rejected. Claims 6 and 14 are allowable but stand objected to as being dependent upon a rejected base claim. New claims 15-17 are added by way of this Reply. Claim 1 is amended to correct a minor typographical error by replacing the word "planting" in line 1 with the word "plating". Claims 1, 13, and 14 are amended to recite that the diol is an "alkyl diol". Support for this amendment is found in the specification at page 2, lines 9 and 10. Claim 7 is amended to change its dependency from claim 1 to claim 2 so that the term "aromatic aldehyde" has proper antecedent basis. New claims 15-17 recite that the alkyl diol is a propanediol, specifically, 1,3-propanediol or 1,2-propanediol. These new claims are supported by the specification at page 2, lines 9 and 10. Accordingly, there is no issue of new matter.

III. OBJECTIONS

The Examiner objected to claim 1 on the grounds that the word "planting" should be replaced with the word "plating". The claim is amended to correct this minor typographical error, and removal of the objection is respectfully requested.

IV. THE REJECTIONS UNDER 35 U.S.C. § 112

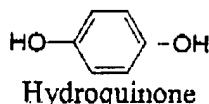
The Examiner rejected claim 7 under 35 U.S.C. § 112, second paragraph, as indefinite on the grounds that the term "the aromatic aldehyde" lacks antecedent basis. Applicants have corrected this defect by amending claim 7 to depend from claim 2 instead of claim 1. Withdrawal of this rejection is respectfully requested.

V. THE REJECTIONS UNDER 35 U.S.C. § 102

Claims 1-2, 7-8, and 11-12 stand provisionally rejected under 35 U.S.C. 102(e) over U.S. Patent Publication No. 2002/0153260 (published October 24, 2002) to Egli *et al.* ("Egli"). Nothing in this Reply should be construed as an admission that Egli is prior art to this application.

Applicants respectfully request withdrawal of this rejection on the grounds that Egli does not teach each and every limitation of claims 1-2, 7-8, and 11-12 as amended herein. Egli does not teach or suggest an "alkyl diol" for reducing the volatility of the electroplating bath as required by Applicants' claims. Applicants have discovered that addition of alkyl diols, such as

1,3-propanediol or 1,2-propanediol, to an electroplating bath reduces the bath's volatility, thereby, advantageously preventing evaporative loss of brightening agents. The Examiner cites Egli as teaching hydroquinone as a diol. However, hydroquinone is not an alkyl diol but rather an aromatic diol with completely different properties. It is used in Egli as an antioxidant. Hydroquinone has the following structure.



In view of the above, it is clear that Egli does not teach or suggest claim 1 or its dependent claims 2, 7-8, and 11-12. Accordingly, withdrawal of the 35 U.S.C. § 102 rejection over Egli is respectfully requested.

VI. THE REJECTIONS UNDER 35 U.S.C. § 103

Applicants traverse the 35 U.S.C. § 103 rejections, as discussed in more detail below, because none of the cited references or any combination thereof, teach or suggest Applicants' unexpected discovery that an alkyl diol added to an electroplating bath reduces the volatility of the bath and prevents evaporative loss of brighteners, particularly, aldehyde brighteners.

Claims 3 stands rejected under 35 U.S.C. § 103 over Egli in view of CN 1224803 (published July 28, 1999) to Liu ("Liu") on the grounds that Liu teaches a polyoxyalkylated alkyl phenol. However, Liu does not teach or suggest an alkyl diol, therefore, this combination does not render Applicants' claims, which require an alkyl diol, obvious. Accordingly, Applicants respectfully request withdrawal of this rejection.

Claims 4-5 and 9 stand rejected under 35 U.S.C. § 103 over Egli. The Examiner alleges that while Egli does not teach that the aromatic compound is octylphenoxy (10) polyethoxy ethanol, one of skill in the art would have been motivated to use octylphenoxy (10) polyethoxy ethanol because it is a well known surfactant. However, as discussed above in Section V, Egli does not teach or suggest an alkyl diol. Therefore, Egli does not render any of Applicants' claims, which require an alkyl diol, obvious. In view of this discussion, Applicants respectfully request withdrawal of this rejection.

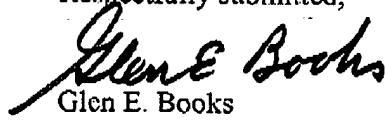
Claim 10 stands rejected over Egli in view of U.S. patent no. 5,021,130 (issued June 4, 1991) to Metzger et al. ("Metzger") on the grounds that Metzger teaches a tin electroplating solution comprising methacrylic acid. However, Metzger does not teach or suggest an alkyl diol, and therefore, cannot remedy Egli. Thus, Applicants respectfully request withdrawal of this rejection.

In brief, none of the cited references teach or suggest Applicants' unexpected discovery that an alkyl diol added to an electroplating bath reduces the volatility of the bath and prevents evaporative loss of aldehyde brighteners. Moreover, none of the cited references or any combination thereof motivate one of skill in the art to add an alkyl diol to an electroplating bath.

VII. CONCLUSION

In view of the above amendments and remarks, Applicants have overcome all objections and rejections, and reconsideration and allowance of the claims is requested. Attached is a petition for a two (2) month extension of time under 37 C.F.R. § 1.136 and fee authorization.

Respectfully submitted,


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